

APPROVED
By Planning Board

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PROJECT PLANNING REPORT

NC 24, Carteret County
From White Oak River Bridge to
East City Limits of Cape Carteret
State Project 8.1160201 (B-912)
Federal-Aid Project FR-8-4(8)

Submitted to
Planning Board
by
Planning and Research Branch
Division of Highways
North Carolina Department of Transportation

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R-912

Project Description

The proposed project consists of minor widening, turn lane construction, drainage, and resurfacing along a 4.4-mile section of NC 24 extending from the east end of the White Oak River bridge eastward to the east corporate limits of Cape Carteret (See attached map). Since the project should have limited effects on the environment, it qualifies as a categorical exclusion.

Existing Conditions

NC 24 is a major arterial in the statewide highway system. The subject section of road has a 22-foot pavement with 10-foot shoulders constructed on good alignment within a 100-foot right of way. No bridges or guardrails exist within the study limits of the facility.

Current daily traffic volumes range from 7000 vehicles per day just east of Cape Carteret to 9700 vpd west of NC 58. Projected 10-year volumes are 9000 to 12,300 vpd, respectively. Truck traffic comprises approximately 4 percent TTST and 6 percent dual tired trucks.

Existing speed limit is primarily 45 MPH, with some 35 MPH sections. A traffic signal is in place at the intersection of NC 24 and NC 58.

A total of 114 accidents were reported along the studied section during a recent 4-year period. The resulting accident rate was 1.83 accidents per million vehicle miles, less than the statewide 1982 average rate of 2.43 acc/mvm for two-lane NC routes in rural areas. Nearly 40 percent of the accidents occurred at sections where additional left turn lanes are proposed. Rear end collisions were the major contributor of these accidents.

Proposed Improvements

Proposed improvements are as follows:

- (1) Widen 3.2 miles of existing pavement to 28 feet, striped to provide 2 @ 12-foot travel lanes and 2-foot paved shoulders.
- (2) Add center lane for left turns between NC 58 and Anita Fort Drive and between Channel View Court and east city limits of Cape Carteret; also add left and right turn lanes at White Oak Elementary School drive. Total

length of turn lane construction is 1.2 miles. Resulting pavement widths would be 40 feet and 52 feet (only where right turn lane is provided), including 2-foot paved shoulders.

- (3) Install drainage, including pipe culverts and underground storm system at various locations.
- (4) Resurface along entire project length.

The proposed improvements would be accomplished within the existing right of way. The proposed increase in travel lane width to 12 feet is necessitated by the high volume of traffic using NC 24 and complies with design guidelines for projects of this type. After widening, earth shoulders would be reconstructed to provide a finished shoulder width of 8 feet, including two foot pavement, as specified in the design guidelines.

Total estimated cost of the project is \$315,000.

TLW/RGDjr/pr



